|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Year 9 Term 6.1 - Maths** | |  | | | | | |
| **Enquiry Question:** **Why did the Ancient Greeks believe that the circle was the perfect shape?** | | | | | | | |
| **Unit title: Circles**  **Why now?** This unit builds on ideas about **area and perimeter of shapes** and **ratios** you first meet in **Year 8** in addition to **similarity** which you meet earlier this year in **Year 9.** The unit will explore the geometrical properties of circles, investigate a famous natural ratio, construct circles using geometrical equipment and use that new knowledge to understand how to find the area and perimeter of a circle and apply in context.  **In year 10**, we then build on circles further and apply these ideas to understand their link to creating **geometrical constructions** such as **perpendicular bisectors.** | | | | | | | |
| **Knowledge**  Students will know about… | **Application/Skills**  Students will be able to… | | **Vocabulary**  *(Tier 2 and 3)* | **Home**  **Learning** | **Assessment** | **Extra Resources**  **Extended Reading** | **Cultural**  **Capital** |
| 1. Parts of a circle 2. Drawing circles accurately 3. All about PI 4. Finding the circumference- and finding radius or diameter given circumference 5. Finding the area- and finding radius or diameter given area 6. Working with compound shapes involving circles and parts of circles 7. Problems involving circles | 1. Work in a team 2. Communicate using mathematical language with others. 3. Having a mathematical Conversation with other students 4. How to investigate a methematical idea | | ***Tier 2***  Compound  Segment  Area  ***Tier 3***  Diameter  Circumference  Chord  Segment of a circle  Tangent  Irrational Number | **Pre-classroom:**  Pre-lesson tasks on **google classroom** to get you thinking.  Diagnostic questions  **Post-Classroom:**  Post lessons online tasks:   * My Maths * Google Form Quizzes * Independent learning notes | Formative assessment at the end of the units in their LPS books.  This will be a combination of students presenting what they know in a creative way followed by some differentiated questions.  Summative Assessment at the end of T2. | **Enrichment:**  **Creative Constructions:**  a. Create a piece of artwork with just a pair of compasses and a ruler.  b. Construct a regular hexagon or a dodecagon using a pair of compasses and a straight edge.  . | Visit the Science Museum in Kensington and see some real-life constructions.  . |
| **Numeracy**  Product  Sum  Total  Difference |